

Appl. No. 09/929,938
Atty. Docket No. 8666
Amdt. dated July 9, 2004
Reply to Office Action of January 9, 2004

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning page 7, line 30 and ending page 9, line 2, as follows.

-- Referring to Figs. 1 and 2, a typical dry cleaning floor mop 10 which can be used with the present invention is illustrated. The floor mop 10 comprises a mop head 110 having a leading edge 111 and a trailing edge 112 and a handle member 210. As used herein, the term "leading edge" is intended to refer to the furthest edge of the mop head 110 which leads the mop head 110 when it is moved in a forward direction away from its user. Likewise, the term "trailing edge" 112 is intended to refer to the furthest edge of the mop head 110 which trails the mop head 110 when it is moved in a forward direction away from its user. For most floor mops, the leading edge 111 and the trailing edge 112 are substantially parallel to the longitudinal axis 113 (or x dimension) of the mop head 110, as shown in Fig. 1, wherein the longitudinal axis 113 is the axis along the length of the mop head 110. A pivotable joint, such as the universal joint 211, interconnects the handle 210 of the mop 10 with the mop head 110. The universal joint 211 comprises two rotational axes that allow the handle 210 to pivot in directions 212 and 213. The handle 210 is threadably interconnected with the universal joint 211 at the connection 214. The handle 210 can be provided as a unitary structure or can comprise three sections 214, 215, and 216 which are threadably interconnected with each other so that the floor mop 10 can be shipped within a carton of convenient size and later assembled for use. The handle section 216 can be provided with an elastic and resilient portion 217 suitable for gripping by a user of the floor mop 10. The mop head 110 also comprises a plurality of securing elements 114. The securing elements 114 are configured to receive and retain a cleaning sheet or pad 310 about the mop head 210, as shown in Fig. 2, during use. Four securing elements 310 are preferably disposed at the corners of the mop head 110, although the number and the location of these securing elements can be varied depending upon the size and shape of the mop head 110. The securing elements 114, one of which is represented with greater details in Fig. 1A and 1B, are preferably provided in the form of an attachment structure which is described in copending US application no. 09/364,714, filed August 13, 1999, to Kingry, et al., now U.S. 6,305,046 issued October 23, 2001, which is hereby fully incorporated herein by reference. One skilled in the art will understand that other kinds of securing elements may be used and provide the same benefits. Preferably, an attachment structure comprises a base triangle 1114 which is defined along two sides thereof by slits which extend through a flexible material which forms the attachment structure. The apex of the base triangle formed by the intersection of the slits is preferably disposed adjacent a side of the mop head 110, although the apex of the base triangle can be disposed adjacent the longitudinal axis of the mop head. The attachment

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structure also preferably comprises a plurality of pie-shaped sections 2114 having apexes which meet at a substantially common point. The pie-shaped sections are defined along two sides thereof by slits which extend through the flexible material from which the attachment structure is formed. This arrangement permits the pie-shaped sections 2114 to individually deflect relative to each other. The common point is preferably disposed adjacent the slits defining the base triangle. The slits through the flexible material of the attachment structure 114 allow the pie-shaped sections 2114 and the base triangle 1114 to deflect under finger pressure so that a portion of the sheet can be pushed through the top surface of the attachment structure and into a cavity 3114 formed within the attachment structure. As the sheet is pushed past the top surface of an attachment structure, the apexes of the pie-shaped sections and the apex of the base triangle can pierce and engage the sheet such that the sheet is retained about the mop head during use. The ends of the slits which define the base triangle and each of the pie-shaped sections preferably terminate with a substantially circular opening 4114. The circular openings can prevent stress cracking, which can be caused by repeated deflections of the attachment structure's flexible material at the slit terminations of the pie-shaped sections and the base triangle during use. --

Please replace the paragraph beginning page 9, line 20 and ending page 10, line 27, as follows.

-- As discussed more fully hereafter, one aspect of the present invention is directed to adapter plates (which in one of the embodiments can be considered to be a "dry dusting plate") which allow a wet mop to be used with dry dusting or sweeping sheets. The benefits of performing dry cleaning followed by wet cleaning have been discussed in previously filed International Application Serial No. PCT/US99/26579 filed November 9, 1999 by, Policicchio, et al, incorporated herein by reference. It has been found that when an efficient sweeping/dry mopping with dry dusting sheets is done prior to wet mopping, the end result is substantially improved compared to any of those operations done alone. It has also been found that when the wet mopping operation is done using a disposable absorbent pad, the benefits are magnified. It has been found that by reducing the particulate load on the floor with an efficient dry sweeping/mopping operation, the burden put on the pad is decreased and as a result its potential efficiency and "life expectancy" measured by the total surface which can be cleaned with a single pad is increased. However, despite the greater benefits provided by a dry cleaning followed by a wet cleaning, some consumers may find it inconvenient to have multiple implements in their household due to limited storage availability, multiple handling and cost. This concern of having two different implements can be addressed by either creating a disposable wet mopping pad with attachment flaps that allow it to be secured to the attachment structures of an

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existing dry dusting implement such as the SWIFFER® cleaning implement (for dust cleaning) or by adding attachment structures such as grippers to the top of a WET JET® like implement (for wet cleaning) which uses Velcro® hooks at the bottom of the mop head capable of engaging the Velcro® loops on a disposable wet mopping pad. Those attachment structures are more fully described in copending US application no. 09/364,714, filed August 13, 1999, to Kingry, et al., now U.S. 6,305,046 issued October 23, 2001, the substance of which is hereby fully incorporated herein by reference. However, while this solution seems to be a better solution than having two separate implements, it is still not ideal. For example, when a dry mop implement is used with a disposable wet mopping pad, the handle's characteristics of the mop may not be appropriate to endure the stress applied to the handle during wet cleaning due to the handle limited strength and pole length. In addition, this solution may render the two step cleaning impractical. All the accessories needed to perform this two step cleaning, i.e., dry followed by wet cleaning, would become somehow too cumbersome since the user would need to dispense liquid by using a hand held sprayer or a squirt bottle. While a wet cleaning implement may not have any of the handle strength or length issues and while it is more practical to use since the liquid is directly carried and dispensed from the mop, simply adding attachment structures to the mop head in order to allow it to be used with dry cleaning sheets can also lead to problems. Specifically, the consumer would have to be cautious and avoid having the dry dusting sheet come into direct contact with the Velcro® hooks, which are typically used at the bottom of the wet cleaning implement to attach an absorbent pad, or the hooks may become contaminated with fibers from the dry cleaning sheet and potentially render the wet mop inoperable. In order to prevent contamination of the hooks, each time a consumer wants to perform dry cleaning with a wet mop, the user will have to first attach a disposable wet mopping pad which will act as a barrier between the dry dusting sheet and the hooks. The dry dusting sheet is then wrapped around the pad and tucked into the attachment structures that have been built into the top of the mop head. This solution is quite inconvenient for the user. In order to avoid this problem, an adapter plate in the form of a dry dusting plate which gives to the consumer the convenience and flexibility to easily switch from dry dusting to wet mopping with the same implement has been invented. —